

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO. 10/727,197	FILING DATE 12/03/2003	FIRST NAMED INVENTOR R. Bharat Rao	ATTORNEY DOCKET NO. 2002P19745US02
EXAMINER Frenel, Vanel			
ART UNIT 3626		PAGE NUMBER 2	

## Response To Official Action

## REMARKS

Claims 1-51 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Evans (U.S. Patent No. 6,347,329) in view of Harvin et al. (Managed Care: New Financial Practice/Strategies . . .) and further in view of PR Newswire (iMedica Creates the Most Comprehensive . . ., PR Newswire, N.Y. Jan. 18, 2000). Applicants respectfully request reconsideration of the rejection of claims 1-51, including independent claims 1, 25 and 39.

Independent claim 1 recites obtaining a medical record comprising structured and unstructured data, analyzing at least the unstructured data with a computer and automatically extracting billing information as a function of the analysis. Similarly, independent claim 25 recites an engine of a device that analyzes structured and unstructured data as a function of domain specific criteria and extracts billing information as a function of the analysis. Likewise, independent claim 39 recites instructions for a program implemented on a machine for analyzing instructed data. Evans and Harvin et al. do not disclose analyzing with a computer "from at least the unstructured data source" and "automatically extracting billing information from the medical record as part of the analysis." Instead, the Examiner relies on PR Newswire and alleges these features to be known in the art as evidenced by PR Newswire.

PR Newswire discloses gathering data at the point-of-care (page 2, paragraph 11). Documentation is provided electronically, and a physician is guided through medical choices and diagnosis codes (page 2, paragraph 5). The physician chooses information from the knowledge base to make charting easier (page 2, paragraph 5). A preinstalled template is used to develop a chart once the physician has arrived at a diagnosis (page 2, paragraph 5). Billing codes may be created based on choices made using the charting template (page 3, paragraph 13), and drug interactions may be automatically checked (page 2, paragraph 1). However, the program is not a diagnostic tool (page 2, paragraph 5). PR Newswire merely shows assisting the physician in electronic chart making using a template on a wireless device. PR Newswire discloses collecting data in a specific record, so does not suggest analysis by a device of unstructured data. None of the three references (Evans, Harvin et al. and PR Newswire) suggest this limitation of claims 1, 25 and 39.

The Examiner alleges that PR Newswire, at page 2, paragraphs 2-3 and 11-12 and page 3, paragraph 1, teaches analysis by a device of unstructured data and extraction of billing information as a function of the analysis. Paragraph 11 (page 2) describes charting on a real-time basis to create an Internet record, and allowing instant access from an Internet connected computer.

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Unstructured data is not even disclosed. Paragraph 5 indicates charting in a structured format by using templates. Paragraph 11 adds Internet access, not analysis by a device of unstructured data. Internet access also does not provide for extraction of billing information as a function of the analysis. Paragraph 11 does not suggest analysis by a device of unstructured data or extracting billing information as a function of the analysis.

Paragraph 12 (page 2) discloses maintaining the electronic medical record in a secure database with encryption and redundancy. There is no suggestion to analyze unstructured data. Secure and redundant storage also does not provide for extraction of billing information as a function of the analysis of unstructured data.

Paragraph 1 (page 3) discloses recommendation of billing codes based on charting results for accurate billing. Unstructured data is not disclosed. The chart uses a template once a diagnosis is determined by the physician. The billing is recommended from the structured inputs, not unstructured data. Any analysis is to provide a billing code based on physician selections in the chart template not to extract billing information as a function of analysis of unstructured data.

Paragraphs 2-3 (page 2) discloses Internet access, a wireless computer with a knowledge base for record keeping and generating billing codes. As discussed above, there is no disclosure of analysis of unstructured data. The billing codes are provided based on knowledgebase guided charting, so are not extracted as a function of analysis of unstructured data.

PR Newswire provides a structured format by guiding the physician through a sequence of choices and codes with a preinstalled template for a given diagnosis (page 2, paragraph 5). Billing codes are based on these results. Rather than analyze unstructured data, PR Newswire shows creating the data in a computer guided method. There is no analysis of unstructured data.

Dependent claims 2-24, 26-38 and 40-51 depend from the independent claims discussed above, so are allowable for the same reasons. Further limitations of the dependent claims distinguish from the cited references. The examples below deal with the citation relied on by the Examiner.

Claims 5 and 42 recite extracting all codes supported by patient information based on all domain-specific criteria. Harvin et al. merely link to billing information (page 4, paragraph 3). There is no disclosure of extracting all codes supported by the patient record and no disclosure of extracting as a function of all domain-specific criteria. PR Newswire provides automatic coding (page 2, paragraphs 2 and 3), but does so based only on the final physician diagnosis (page 2, paragraph 5). PR Newswire does not disclose extracting all codes supported by the information. The Examiner did not address this argument.

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Claims 6 and 7 recite institution-specific domain knowledge. The cited paragraph of Harvin et al. (page 2, paragraph 1) notes the existence of an institution, but in the context of having financial liability. There is no disclosure of institution-specific domain knowledge used for analysis by a device. Similarly, required reporting of page 2, paragraph 7 does not provide for hospital based domain knowledge used for analysis by a computer. The Examiner did not address this argument and did not cite to PR Newswire for this limitation. PR Newswire does not disclose this limitation.

Claims 8 and 9 recite condition or disease specific knowledge used for analysis of patient data by a device. Col. 7, lines 1-9 of Evans cited by the Examiner and PR Newswire relate to mere data entry by a physician, not knowledge used for searching the patient record by a computer. Col. 14, lines 45-67 relate to creating an audit trail of data entry, not condition or disease specific knowledge for analyzing the patient record by a computer. The Examiner did not address this argument.

Claims 10, 11, 24, 28 and 29 recite an explanation with a pointer to information supporting the extracted billing information. The pointers of Evans at col. 8, lines 34-65 are mere references to other data sources making up the patient record, so are not pointers to information supporting extracted data. Similarly, Harvin et al., on page 4, paragraphs 3 and 4 link to billing information, but do not disclose pointing to supporting information providing the basis for the billing codes. The Examiner does not address this argument and did not cite to PR Newswire for these limitations. PR Newswire does not disclose these limitations.

Claims 12, 13, 14, 30 and 31 recite automatically generating a medical claim for the patient using the extracted billing information. Other than not extracting the billing information as claimed, Harvin et al. link to billing information and automate some other aspects (page 4, paragraphs 3 and 7). However, Harvin et al. do not disclose automatically generate a medical claim for a patient.

The Examiner cites to paragraph 12 of page 2 of PR Newswire. Paragraph 12 (page 2) discusses secure and redundant storage of the medical record. There is no suggestion to generate a medical claim in paragraph 12. Paragraph 1 (page 3) discloses providing billing codes for accurate billing, but does not disclose an additional generation of a medical claim.

Claims 18, 19, 20, 35 and 36 recite automatic assessment of the quality of information of the medical record using the extracted billing information. Harvin et al. assume the medical record data is accurate (page 5, paragraphs 4 and 6). The Examiner did not address this argument and did not cite to PR Newswire for these limitations. PR Newswire does not disclose these limitations.

Claims 21, 22, 23 and 37 recite automatically determining an expected amount of reimbursement. Harvin et al. note case tracking (page 2, paragraph 7) and the importance of identifying profitability (page 4, paragraph 1). Harvin et al. relies on data entry to assist these

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goals, not on any determination of an expected amount of reimbursement. The Examiner did not address this argument. PR Newswire does not disclose these limitations.

Claims 43-51 recite inferring a diagnosis and associated billing information. PR Newswire is not a diagnostic tool (page 2, paragraph 5). Intuitive charting assists in entering a patient record (page 2, paragraph 5), but intuitive charting is not inferring a diagnosis. Recommending billing codes based on the chart (page 3, paragraph 1) is also not inferring a diagnosis. The Examiner did not address this argument.

Claims 44, 47 and 50 recite inferring without reference to diagnosis codes. PR Newswire provide billing code recommendations based on the chart after guiding the chart creation. Automatic HCFA/Medicare compliant coding is provided (page 2, paragraph 2). There is no disclosure that the billing codes are not based on diagnosis codes.

The Examiner cites to PR Newswire, page 2, paragraphs 2-3 for these limitations. Paragraphs 2-3 (page 2) disclose creating a patient record and storing the patient record on the Internet with a wireless computer and knowledgebase tailored to a specialty for common workflow. There is no disclosure of inferring. PR Newswire starts after the doctor reaches a diagnosis, so uses diagnosis to identify the common workflow. There is no disclosure of inferring without reference to diagnosis codes.

Claims 45, 48 and 51 recite determining a probability as part of inferring a diagnosis. Harvin et al. note various statistics calculated from the structured database and indicate that the possibilities for such reports are endless (page 4, paragraph 7). However, there is no suggestion to determine a probability as part of inferring a diagnosis with a computer. The Examiner did not address this argument and does not cite to PR Newswire for these limitations. PR Newswire does not disclose these limitations.

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are in proper format and are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is invited to contact the undersigned at the telephone number listed below with any questions concerning this application.

Respectfully submitted,

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